

A work indispensable to the working ornithologist, carefully executed, and having the advantage of being revised by the Prince of Canino, Mr. G. R. Gray, and Mr. Strickland. In an undertaking requiring such extensive consultation of authors, some mistakes, or errors of the press, might be expected, but so far as we have examined it, these are remarkably few; *oreophilus*, p. 53, is *oreophilus*, or rather it should be *oreopölus*, from *öpos*, *mons*, and *πολέω*, *frequentio*.

The Birds of Australia, by J. Gould, F.L.S., &c. Parts VIII. IX. Oblong folio. 1842. The pictorial character and scientific interest of these numbers are sustained; in both we have illustrations of many new genera, (perhaps too many,) and the author is following a very useful practice, of devoting a considerable portion of every number to the illustration of a genus, so that the whole, or a great portion of it, is at once brought under review. Thus, in No. VIII. we have seven species of the old genus *Petroica* figured; the author, however, subdividing it, and placing the old *P. rhodinogaster* under the title of *Erythrodryas*. Again, in No. IX. there are plates of six species of swallows, illustrating five genera.

The Natural History of Selborne, by the late Rev. G. White. New edition, with Notes by the Rev. Leonard Jenyns. London, Van Voorst.

A General History of Animalcules, by A. Pritchard. Part I. London, Whittaker.

History of British Birds, by William Yarrell. Part XXXII. 8vo, August 1, 1842, concludes the history of the Goosanders, and contains those of the Grebes and Divers (*Podiceps*, *Colymbus*).

Faune Belge, 1<sup>ière</sup> Partie, Indication des Mammifères, Oiseaux, Reptiles et Poissons observés jusqu'ici en Belgique, par Edm. De Selys-Longchamps.

*Works preparing for publication.*

Mr. Gould has in preparation an illustrated monograph of the genus *Ortyx*, or strong-billed American partridges.

*Icones Piscium; or Plates of rare Fishes.* By John Richardson, M.D., F.R.S., F.L.S., F.R.G.S., &c.

The fasciculi of this work are intended to appear at intervals, according to the encouragement it may receive. The charge not to exceed the outlay. Fasciculus I. will contain twelve coloured figures, being exact copies of drawings from the portfolio of J. B. Emery, Esq., late first lieutenant of the Beagle surveying vessel, employed on the western coasts of Australia, accompanied by brief notices. Full descriptions of some of the species by Dr. Richardson have appeared in our pages.

PROCEEDINGS OF LEARNED SOCIETIES.

ENTOMOLOGICAL SOCIETY.

March 7th, 1842.—W. W. Saunders, Esq., F.L.S., &c., President, in the Chair.

Mr. Boreham exhibited some curious varieties of *Hipparchia Janira*,

and Mr. S. Stevens a number of minute *Coleoptera*, collected from moss during the preceding winter.

The Rev. F. W. Hope exhibited a specimen of a new and coarse kind of white silk, communicated by Mr. Strachan. He also read some extracts from a letter received by him from Mr. Fortnum, Corr. Mem. E.S. at Adelaide, in South Australia, containing many observations on the entomology of that district.

Mr. Westwood exhibited specimens of *Uropoda vegetans* which had been found in countless multitudes on the surface of the ground, in a cucumber frame, and which attached themselves to a beetle introduced into the frame.

The following memoirs were read :—

Continuation of a memoir on the *Chrysomelidæ* of New Holland allied to *Cryptocephalus*. By W. W. Saunders, Esq., President, containing detailed descriptions of the following insects :—

*Ochrosopsis*, n. g., divided from *Anodonta*. *Eyes reniform*. *Antennæ* as long as the body, 11-jointed; 1st joint robust, clavate; 2nd small, obconic; 3rd, 4th and 5th of nearly equal length; 4th shortest, the remainder gradually decreasing in size. *Thorax* rounded in front, transverse, nearly as broad as the *elytra*. *Elytra* half as long again as broad. *Legs* moderate. *Colour* pale.

*Ochrosopsis vermicularis*. *Reddish-brown*; *thorax* and *elytra fulvous*, *rugose*, with the impressed punctures black, those on the *elytra* forming irregular striæ; *legs* light rufous brown. Length  $\frac{3}{10}$  inch.—Hab. New Holland. Mus. Hope.

*Ochrosopsis australis*. *Head ochre-yellow*; *antennæ dusky brown*; *thorax* shining reddish brown, with a longitudinal band and two faint oblique bands of fulvous, with large black impressions; *scutellum* dark brown; *elytra fulvous*, with large irregular impressions; beneath pale ochre-yellow; *legs dusky fulvous*. Length  $\frac{5}{20}$  inch.—Hab. Swan River. Mus. Hope.

*Ochrosopsis erosa*. *Head ochre-yellow*; *antennæ black*; *thorax* shining fulvous, with coarse black impressions forming two blackish patches; *scutellum* black; *elytra* pale ochre-yellow, with deep and irregular black punctures, which are occasionally confluent; *legs* light reddish brown. Length  $\frac{2}{10}$  inch.—Hab. Swan River. Mus. Hope.

*Ochrosopsis melanocephala*. *Head ochre-yellow*, with the vertex and a central line black; *antennæ black*; *thorax* ochre-yellow, with a small oblong patch near the hinder angles, and a large triangular patch on each side in front black and punctured; *scutellum* black; *elytra* shining ochre-yellow, with dark brown punctures; *legs* reddish brown; *tips of femora, tibiæ and tarsi black*. Length  $\frac{2}{10}$  inch.—Hab. New Holland. Mus. Hope.

*Aporocera chalybea*. *Head dark chestnut-brown*, mouth ochre; *antennæ black*; *thorax* pitchy black, with ochreous margins deeply punctured; *scutellum* black; *elytra* shining chalybeate blue, deeply punctured; *legs* pale ochre-yellow, with the tips of the *tibiæ* and *tarsi* black. Length  $\frac{3}{10}$  inch.—Hab. Port Essington. Mus. Hope.

“Notes upon the genus *Hylæus*, and on *Cryptus bellosus*, and other insects.” By G. H. K. Thwaites, Esq., M.E.S.

In this communication (addressed to the Secretary) Mr. Thwaites states, that he discovered in the preceding summer that *Hylæus* is not parasitical, having reared several individuals of two species from bramble sticks, the holes in which exactly corresponded with the size of the insects, and were much too small for any other bee likely to be found in such a situation except *Heriades*, which does not occur in the neighbourhood of Bristol. Great care is taken by Mr. Thwaites in cutting away the wood of bored sticks so as to expose the cocoons, which are carefully watched, so that the insect escaping from each is at once detected.

It is desirable, Mr. Thwaites adds, to discover upon what kind of food the larva of the *Hylæus* is fed, and if on pollen, how the parent insect conveys it to its nest. Both *Hylæus* and *Ceratina* emit, when captured, a considerable quantity of sticky fluid from the mouth; but they can scarcely convey pollen to their nidi by means of a capacious stomach. The cocoons of the *Hylæus* are arranged regularly end to end, and the upper ones produce males, which come out first. Mr. Thwaites has also reared a new species of *Hylæus* allied to *H. dilatatus*, K., from bramble sticks.

Mr. Thwaites has reared *Cryptus bellosus* from a cocoon in a hole much too small for *Epipone levipes*, and which he believes to be that of a new species of *Trypoxylon* which he has discovered near Bristol.

Upon reading Mr. Dale's account of the curious mode in which a *Stylops* acted when a bee was placed under the glass in which it was confined, it occurred to Mr. Thwaites that the *Stylops* may perhaps lay its eggs on the body of the bee, and that they may be introduced into the nest by being brushed off with the pollen. If the bees, not infested, come out later than the others, the above idea cannot be true; but it is possible that he may have been deceived, and that the bees he observed later may not have been the same species. The *Styloped* and other *Andrenæ* (mentioned in Mr. Thwaites's short article in *Trans. Ent. Soc.*, vol. iii. p. 67), appear to have been introduced in his garden with some mould brought there some months previously, as none had appeared since last year.

“Memoir on the genus *Hylæus*, with descriptions of several new British species.” By Mr. F. Smith, who also stated that he had reared *Cryptus bellosus* from the nests of more than one species of bee. The following are the new species described in this memoir:—

*Hylæus cornutus*, Kirby MSS. ♀ *This species is remarkable for the two teeth and frontal prominence which arm the clypeus; antennæ fulvous beneath, posterior tibiæ annulated with yellow.*—Cove Common, Hants. Mus. Ent. Soc. London, and Smith.

*Hylæus plantaris*, Smith. ♂ *Black; plantæ of the intermediate legs dilated at the base; antennæ yellow, short, with the scape considerably dilated in males, with a black streak above; thorax with a yellow spot on each side of the collar.* Length 3 lines.—Cove Common, Hants. Mus. Smith.

*Hylæus pallidens*, Kirby MSS. ♂ *Black; scape of antennæ with*



a yellow line in front; face white; mandibles yellow; anterior tibiæ yellow; fore femora with a yellow line in front; abdomen piceous, with a fringe of white hair on each side of the first segment. Length 3 lines.

*Hylæus punctulatissimus*, Smith. ♀ Black, with a cream-coloured stripe close to the eyes; antennæ black; thorax coarsely punctured, variegated with pale yellow; abdomen with a fringe of white hair on each side of the first segment. ♂ *H. annularis*, var.  $\gamma$ , Kirby. Taken in company together at Coombe.

*Hylæus hyalinatus*, Smith. ♀ Head and thorax black, very minutely punctured with deeper punctures intermixed; antennæ black; wings hyaline; legs black, posterior annulated with yellow. ♂ Black; face yellow, scape of antennæ black, remaining joints fulvous beneath; thorax with a yellow spot on the tegulæ and tubercles; wings hyaline. Length 2 lines.—Received from Mr. Thwaites.

“Descriptions of some new exotic genera belonging to the family of the Sacred Beetles.” By J. O. Westwood, F.L.S.

Retaining *Canthon viridis*, Klug, as the type of *Epilissus*, Dej. Cat., Mr. Westwood considers *Circellium nitidum*, Lap. Hist. nat. ins. col. ii. p. 66, from Madagascar, as the type of a separate subgenus under the name of

ARACHNODES, W. *Mentum basi latius, lateribus convergentibus apice haud emarginato. Palpi labiales graciles. Prothorax lateribus, pone medium valdè angulatis et reflexis. Pedes valdè elongati, femoribus longis haud compressis. Tarsi articulo ultimo subtùs ad apicem in spinam parvam producto.*

NANOS, W. *Antennarum clava, brevis, subrotundata. Mentum in medio latius, anticè valdè emarginatum. Palpi labiales brevissimi crassi. Prothorax lateribus ferè rotundatis haud reflexis. Pedes parùm elongati, tibiis curvatis.*—Type *Circellium pygmæum*, Laporte. Madagascar.

MACRODERES, W. *Corpus ferè hemisphericum, clypeus emarginatus. Mentum subtriangulare anticè profundè fissum. Prothorax maximus lateribus rotundatis, anticè utrinque obsolete retusus. Elytra levissime striato-punctata. Tibiæ posticæ apice dilatatæ, tarsi articulo basali magno compresso triangulari.*—Type *Onthophagus Greeni*, Kirby. Cape of Good Hope.

UROXYS, W. *Corpus oblongum subdepressum, elytris posticè acuminatis. Clypeus anticè acutè bilobus. Mentum subquadratum, anticè parùm emarginatum. Palpi labiales articulis longitudine ferè æqualibus. Prothorax lateribus in medio angulatis. Pedes anticè elongati, tibiis (in uno sexu) depressis intùs angulatis. Tarsi 4 postici articulis magnitudine decrescentibus.*

*Uroxys cuprescens*, W. *U. cupreo- seu violaceo-nigricans, nitida levissime punctulata, antennis rufescentibus, elytris striis 8 leviter punctatis, tarsis piceis.* Long. corp. lin.  $4\frac{3}{4}$ .—Hab. Colombia.

*Scatonomus* (Erichson) Myrmidon, W. *S. subcylindricus, niger, capite et pronoto viridibus nitidis, clypeo profundè emarginato, in sinu acutè bidentato; elytris leviter striatis; prothoracis angulis posticis prominentibus.* Long. corp. lin. 2.—Hab. Cayenne.

*Scatonomus smaragdinus*, W. *S. brevis, subcylindricus, smaragdinus*; capite anticè profundè emarginato in sinu obtusè bidentato; elytris leviter striatis; tibiis 4 posticis angustioribus; prothoracis angulis anticis in lobum parvum productis. Long. corp. lin.  $2\frac{1}{4}$ .—Hab. Brazil. Mus. Gory.

*ANOMIOPUS*, W. *Corpus oblongum subconvexum, pedibus latissimis. Mentum ovale basi truncatum, anticè vix emarginatum. Palpi labiales breves articulis sensim minoribus. Clypeus bidentatus. Prothorax lateribus rotundatis. Elytra marginata striisque impressa. Tarsi posticè latissimi.*

*Anomiopus virescens*, W. *A. æneo-virescens, dentibus duobus clypei obtusis, capite pronoto et elytris tenuissime et irregulariter punctulatis; elytris striato-punctatis; punctis vix distinctis; tibiis 4 posticis in medio prominulis; tibiis anticis ad basin externè 4-serratis.* Long. corp. lin.  $3\frac{1}{2}$ .—Hab. Brazil.

*Anomiopus nigricans*, W. *A. æneo-niger, dentibus clypei acutis parallelis; fortius punctatus; punctis duobus parvis inter oculos; elytris pauld longioribus cyaneo-nigris, striis profundis; pedibus anticis castaneis; tibiis anticis basi externè 7-denticulatis; tibiisque posticis in medio haud prominulis.* Long. corp. lin.  $2\frac{1}{2}$ .—Hab. Brazil.

“Descriptions of the *Coleopterous* insects sent to England by Dr. Cantor from Chusan and Canton, with observations on the Entomology of China.” By the Rev. F. W. Hope, F.R.S., &c.

The following are the characters of the new species described in this paper:—

Sp. 1. *Lucanus Confucius*, Hope. ♂ *Niger nitidus, mandibulis capite thoraceque ferè æqualibus; caput depressum, clypeo in medio producto, flavo-ciliato; thorace transversè oblongo, angulis posticis obliquè truncatis, granulato.* Long. lin. 28, lat. lin. 7.

Sp. 2. *Copris Sinicus*, Hope. ♂ *Niger exscutellatus, thorace prominentiâ duplici, cornu capitis erecto intus ad basin 2-denticulato.* Long. lin. 10, lat. lin.  $5\frac{1}{4}$ . Allied to *C. Sabæus*, Fab.

Sp. 3. *Copris Sinensis*, Hope. *Mas adhuc latet. Niger exscutellatus, clypeo emarginato, capite tuberculo lato armato, elytris striato-punctatis.* Long. lin. 9, lat. lin.  $4\frac{1}{2}$ .

Sp. 4. *Onthophagus Sinicus*, Hope. *Niger, antennis luteis, clypeo integro, capite cornu tauriformi; thorace punctulato; elytris striato-punctatis, interstitiis disci punctatis.* Long. lin.  $4\frac{1}{4}$ , lat. lin.  $2\frac{1}{4}$ .

Sp. 5. *Dipelicus Cantori*, Hope. *Piceus, capite anticè trigono, posticè cornu elevato triangulari; thorace convexo, varioloso punctato, marginibus undique elevatis; elytris lineato-punctatis.* Long. lin. 19, lat. lin.  $8\frac{3}{4}$ .

Sp. 6. *Mimela Downsii*, Hope. *Affinis Mimelæ glabræ Hope, at minor. Viridis glabra infrà aurato-viridis; antennis atrovirescentibus, mesosterno abruptè truncato.* Long. lin. 6, lat. lin. 3.

Sp. 7. *Popillia Maclellandi*, Hope. *Castanea, capite punctulato, thorace glabro cupreo, elytris castaneis podice atro, maculis duabus flavis e pilis brevibus formatis.* Long. lin. 7, lat. lin.  $3\frac{1}{4}$ .

- Sp. 8. *Popillia castanoptera*, Hope. *Castanea, clypeo integro punctato parùm reflexo, viridis; thorace concolori creberrimè punctulato, fossulá utrinque impressá; scutello punctato; elytris pallidè castaneis, striato-punctatis.* Long. lin. 5, lat. lin.  $2\frac{1}{2}$ .
- Sp. 9. *Holotricha Sinensis*, Hope. *Picea, clypeo emarginato, thorace convexo pruinoso, fossulá utrinque impressá, marginibusque externè subserratis; elytris rubro-piceis punctatissimis, corpore infrà concolori.* Long. lin. 10, lat. lin.  $4\frac{1}{2}$ .
- Sp. 10. *Holotricha plumbea*, Hope. *Pruinosa, capitís clypeo ferè integro; thorace convexo punctulato, lateribus sub lente parùm subserratis; elytris plumbeo-piceis punctatis.* Long. lin.  $10\frac{3}{4}$ , lat. lin.  $4\frac{1}{4}$ .
- Sp. 11. *Serica Sinica*, Hope. *Atro-plumbea, clypeo integro, anticè punctulato, posticè glabro; thorace marginibus parùm elevatis; elytris plumbeis seu atro-pruinosis lineolatis.* Long. lin. 4, lat. lin.  $2\frac{1}{4}$ .
- Sp. 12. *Agrypnus orientalis*, Hope. *Affinis A. cœnoso, Hope, at major. Fuscus flavisque capillis aspersis; clypeo integro auricomó; thoracis angulis anticis obtusis, disco in medio 2-tuberculato.* Long. lin. 9, lat. lin. 3.
- Sp. 13. *Ludius crocopus*, Hope. *Fuscus, antennis concoloribus; thorace angulis posticis valdè acutis, tomentoso; elytris striatis, striis sub lente parùm punctatis.* Long. lin. 7, lat. lin. 2.
- Sp. 14. *Ludius luteipes*, Hope. *Affinis L. Umbricolæ, Eschscholtz, at minor. Niger, antennis flavescens; thorace albo-tomentoso; elytris striato-punctatis nigricantibus.* Long. lin.  $5\frac{1}{4}$ , lat. lin.  $1\frac{1}{2}$ .
- Sp. 15. *Ludius 4-lineatus*, Hope. *Castaneus, thorace nigro, elytris quatuor lineis nigris insignitis, antennis nigris, capite concolori, thorace atro capillis flavis asperso.* Long. lin.  $4\frac{1}{2}$ , lat. lin.  $1\frac{1}{4}$ .
- Sp. 16. *Colophotia flavida*, Hope. *Affinis C. præustæ, Eschscholtz. Flava, capite atro, oculis magnis; thorace convexo concolori, angulis posticis subacutis, medio disci lined fortiter impressá insignito; elytris flavescens apicibus subfuscis.* Long. lin.  $4\frac{1}{2}$ , lat. lin.  $1\frac{1}{2}$ .
- Sp. 17. *Lycus Cantori*, Hope. *Aurantius, antennis fusco-nigris; thorace flavido cruce nigricante insignito; elytris latis aurantiis substriatis.* Long. lin.  $3\frac{1}{4}$ , lat. lin. 1.
- Sp. 18. *Nacerdes Chinensis*, Hope. *Flava, capite nigro, antennis duobus primis articulis fuscis, reliquis flavescens; thorace cum elytris concolori nigris.* Long. lin.  $5\frac{1}{2}$ , lat. lin.  $1\frac{1}{4}$ .
- Sp. 19. *Lagria nigricollis*, Hope. *Flava, antennis capite thoraceque nigris, elytris pallidè castaneis villosis, corpore infrà piceo, pedibus concoloribus.* Long. lin. 3, lat. lin.  $1\frac{1}{4}$ .
- Sp. 20. *Hamaticherus Cantori*. *Affinis Hamatich. Paridi, Wied. Magnus, fusco-brunneus, sericeus, elytrisque corpore longioribus; capite porrecto fronte foveolatá, thorace fortiter rugoso utrinque armato, lined mediá longitudinali valdè incisd.* Long. lin. 26, lat. lin.  $6\frac{1}{2}$ .
- TRIRACHYS**, Hope. Genus novum Hamatichero affine. *Caput porrectum, fronte rugosá. Antennæ 11-articulatæ; articulo 1<sup>mo</sup> crasso,*



valdè rugoso ; 2<sup>do</sup> minimo ; 3<sup>tio</sup>, 4<sup>to</sup> et 5<sup>ta</sup> in mare spinis armatis, quinque sequentibus gradatim longioribus et inermibus, externo longissimo ternis præcedentibus haud æquali, thorax utrinque armatus.

- Sp. 21. *Trirachys orientalis*. *Magnus brunneus et aurato-sericeus ;* antennis piceis, thorace utrinque armato et rugoso, dorso binis sulcis longitudinaliter impressis. Long. lin. 21, lat. lin. 6 $\frac{1}{4}$ .
- Sp. 22. *Monohammus alternatus*, Hope. *Affinis M. Dentatori, Fab., at minor. Griseo-brunneus, thorace spinoso, elytris cinereo brunneo glaucoque nebulosis, corpore infrà concolori.* Long. lin. 10, lat. lin. 3 $\frac{1}{4}$ .
- Sp. 23. *Oplophora Horsfieldii*. *Nigra, antennis albo-cingulatis ; thorace utrinque spinoso atro, lineis binis flavis longitudinalibus insignito ; elytra duodecim maculis flavis notata.* Long. lin. 20, lat. lin. 8.
- Sp. 24. *Cassida piperata*, Hope. *Flava, antennis concoloribus, quatuor ultimis articulis nigricantibus ; thorace ferè hyalino flavo, maculâ minutâ nigrâ in medio disci positâ ; elytris flavis disco nigro-piperato.* Long. lin. 2 $\frac{1}{4}$ , lat. lin. 1 $\frac{5}{8}$ .
- Sp. 25. *Clythra nigrifrons*. *Aurantia, capite nigro, thorace flavo immaculato ; elytris rubro-flavis, humeris atro-maculatis fasciâque nigro-violaceâ ante apicem positâ.* Long. lin. 3, lat. lin. 1 $\frac{1}{2}$ .
- Sp. 26. *Coccinella 18-spilota*. *Flava, binis maculis irregularibus nigris notata, elytris 18-spilotis, maculâ scutellari communi.* Long. lin. 3 $\frac{1}{4}$ , lat. lin. 2 $\frac{1}{4}$ .
- Sp. 27. *Coccinella succinea*. *Succineo-flava, thorace pallidiori, maculis quatuor in medio disci nigris ; elytris immaculatis, corpore infrà flavo, pedibus concoloribus.* Long. lin. 3, lat. lin. 2.
- Sp. 28. *Coccinella tetraspilota*. *Flava, thorace anticè flavo, posticè nigro ; elytris pallidè flavis, suturâ nigricanti, maculâ rotundatâ nigrâ ad humeros positâ, secundâ formâ irregulari ferè ad medium disci locatâ.* Long. lin. 2 $\frac{1}{4}$ , lat. lin. 1 $\frac{1}{4}$ .

Descriptions of the new *Coleoptera* from Canton :—

- Sp. 1. *Melolontha Chinensis*. *Affinis Mel. Nepalensi, Hope. Castanea, thorace colore saturatiori inquinato albisque capillis irrorato ; elytris testaceis, lateribus externè sulcatis et atro-marginatis.* Long. lin. 18, lat. lin. 8 $\frac{1}{4}$ .
- Sp. 2. *Anomala controversa*, Hope. *Castanea, capite piceo, margine anteriori parùm elevato, antennis testaceis ; thorace flavo-castaneo punctato, maculis magnis binis nigris insignito, alterâque minori utrinque in marginibus locatâ ; elytris striato-punctatis, flavo piceoque colore variegatis.* Long. lin. 6 $\frac{1}{2}$ , lat. lin. 3.
- Sp. 3. *Galba Chrysocoma*, Hope. *Flava, capite nigro, antennis pectinatis atris, thorace anticè rotundato, angulis posticis acutis, disco 4-tuberculato, tuberculis auratis capillis tectis, elytris aureo-tomentosis fuscis.* Long. lin. 8, lat. lin. 2 $\frac{1}{2}$ .
- Sp. 4. *Harpalus Sinicus*. *Niger, capite anticè rubro-picco, posticè atro-nitido, antennis rufo-fuscis pilosis ; thorace lateribus rufo-*

- marginatis, posticè parùm punctulato; elytris striatis.* Long. lin. 7, lat. lin. 2.
- Sp. 5. *Amara orientalis.* *Nigra, antennis rufis, thorace rufo-marginato, elytris striato-punctatis pedibusque rufo-testaceis.* Long. lin. 3, lat. lin. 1.
- Sp. 6. *Harpalus cyanescens, Hope.* *Niger, capite concolori, antennis duobus articulis primis testaceis, reliquis fusco-nigris; thorace atro, margine omni flavo; elytris striato-punctatis, medio disci cyaneo, suturâ flaveolâ, ternis lateralibus striis flavis.* Long. lin.  $4\frac{1}{2}$ , lat. lin.  $1\frac{1}{4}$ .
- Sp. 7. *Harpalus difficilis, Hope.* *Atro-æneus, antennis fuscis, thorace flavo-marginato, elytris striatis atro-æneis, apicibus testaceis; corpore infrâ piceo, pedibus flavescens.* Long. lin. 3, lat. lin.  $\frac{3}{4}$ .
- Sp. 8. *Harpalus Trechoides, Hope.* *Fusco-flavus, antennis binis primis articulis testaceis, reliquis atris; thorace brunneo, margine omni flavo; scutello concolori; elytris fusco-brunneis, suturâ marginibusque externis flavescens.* Long. lin.  $2\frac{1}{2}$ , lat. lin.  $\frac{3}{4}$ .
- Sp. 9. *Coptodera 2-cincta, Hope.* *Flava, capite rufo antennisque rubris; thorace nigro; elytris nigris binis fasciisque flavis insignitis.* Long. lin. 2, lat. lin.  $\frac{1}{2}$ .
- Sp. 10. *Haliplus Sinensis.* *Flavus, capite rufo, thorace luteo binisque maculis punctis insignito; elytris pallide flavis striato-punctatis, punctis nigris, maculisque quatuor majoribus in medio disci positis, suturâ nigricante.* Long. lin.  $1\frac{5}{8}$ , lat. lin. 1.
- Sp. 11. *Hydrobius neglectus.* *Fulvus, capite rufo, thorace pallidiorè; elytris fusco-flavis striatis; corpore infrâ nigro, pedibus flavo-piceis.* Long. lin. 2, lat. lin. 1.
- Sp. 12. *Upis Sinensis, Hope.* *Niger opacus, thorace punctulato angulis anticis lateribusque parùm rotundatis; elytris variolosopunctatis, punctis fortiter insculptis.* Long. lin. 8, lat. lin.  $2\frac{3}{4}$ .
- Sp. 13. *Amarygmus carbonarius.* *Niger, capite fronte foveolatâ, thorace convexo lateribus elevatis; elytris striato-punctatis nigris.* Long. lin.  $8\frac{1}{2}$ , lat. lin.  $3\frac{1}{2}$ .
- Sp. 14. *Epilampus pulcher.* *Cupreo-æneus, antennis nigris; thorace atro-æneo cupreoque colore tincto; scutello atro; elytris striatis aurato-viridibus puniceoque colore inquinatis.* Long. lin.  $4\frac{1}{2}$ , lat. lin. 2.
- Sp. 15. *Epilampus chrysostictus.* *Nigro-æneus, capite suprâ fortiter impresso, thorace atro marginato, maculâ mediâ auratâ, lateribus aureolâ falcatâ hinc utrinque insignitis.* Long. lin.  $5\frac{1}{4}$ , lat. lin. 2.
- Sp. 16. *Apate rejecta, Hope.* *Nigra, thorace convexo, disco utrinque minutis dentibus scabro, elytris rugoso-punctatis, ante apicem 2-dentatis; corpore infrâ nigro, pedibus atro-piceis.* Long. lin.  $2\frac{1}{2}$ , lat. lin. 1.
- Sp. 17. *Apate rufa.* *Rufa, thorace convexo punctulato; elytris fortissimè punctulatis, apicibus rotundatis et integris, pedibus concoloribus.* Long. lin.  $1\frac{1}{2}$ , lat. lin.  $\frac{1}{4}$ .



Sp. 18. *Promeces Sinensis*. *Obscurè viridis, capite cyaneo antennisque atris; thorace utrinque armato nigro, ternis lineis viridi-auratis insignito; elytris elongatis nigro-viridibus, suturâ pallidiori.* Long. lin. 13, lat. lin.  $2\frac{1}{2}$ .

Sp. 19. *Eumolpus ignicollis*. *Violaceus, capite anticè nigro, posticè aurato medioque viridi; thorace cupreo igneo marginato, sub lente punctulato; elytris violaceis lineato-punctatis, marginibus purpurascensibus.* Long. lin.  $3\frac{1}{2}$ , lat. lin.  $1\frac{1}{2}$ .

Sp. 20. *Galleruca atripennis*. *Nigra, antennis luteis; thorace flavo, elytrisque atris et nitidis, sub lente punctulatis; corpore infrâ luteo, pedibus concoloribus.* Long. lin.  $3\frac{1}{2}$ , lat. lin.  $1\frac{1}{2}$ .

Sp. 21. *Galleruca erosa*. *Lutea, antennis fuscis, primo articulo rubro; thorace utrinque lateribus subspinosis; elytris pallide luteis erosis, corpore infrâ concolori.* Long. lin.  $2\frac{1}{4}$ , lat. lin.  $1\frac{3}{4}$ .

April 4th.—W. W. Saunders, Esq., President, in the Chair.

Mr. Westwood exhibited three new species of Australian *Rhipicera*, from the collections of the Entomological Society and the Rev. F. W. Hope, of which the following are the characters:—

*Rhipicera attenuata*, W. *R. nigra punctatissima angusta, elytris fusco-luteis, guttis minutis rotundatis albis sparsim notatis.*  
♂ Long. corp. lin. 7.—Hab. New Holland.

*Rhipicera pumilio*, W. *R. angusta picea, capite nigro, prothorace et elytris guttis vel squamis albidis ornatis.* Long. corp. lin. 4.  
—Hab. New Holland; Swan River.

*Rhipicera brunnea*, W. *R. brevis crassa, opaca, luteo-setosa; elytris fuscis nonnullis irregularibus interruptis, e squamis fulvis formatis; antennis brevibus, 18-articulatis.* ♂ Long. corp. lin.  $6\frac{1}{2}$ —9.—Hab. New Holland.

He also exhibited specimens of *Goliathus Delessertii*, G., and *Gnathocera micans*, G., from the collection of M. Guerin Méneville.

The following memoirs were read:—

“Notice of an Apparatus for Capturing Insects by Lamp-light.”  
By Mr. Stevenson, Corr. M.E.S., consisting of a box about two feet square and about a foot deep, without a wooden top, its place being supplied by four pieces of talc or glass, each fixed at an acute angle on the interior of the mouth, on each side of the square and opening inwards, a free open space of several inches square being left in the middle, at the back of which is a lamp, defended by a semi-circular glass guard, against which the insects will fly, attracted by the light, and falling to the bottom of the box will be prevented from crawling out again by the oblique direction of the talc or glass front. This apparatus may be hung in any locality likely of success.

Continuation of “Descriptions of New Holland *Chrysomelidæ* allied to *Cryptocephalus*.” By W. W. Saunders, Esq.

ANODONTA, Hope MSS. *Body short, ovate, compressed or cylindrical. Legs rather short. Head vertical, rotundate. Eyes reniform. Antennæ subclavate, half as long as the body in the females, nearly as long as the body in the males; 3rd, 4th and 5th joints rather long, nearly of equal length, slender, the re-*

mainder sensibly larger and gradually decreasing in length in the females, nearly of the same length in the males.

Section 1. *Body ovate, compressed.*

*Anodonta Roei*, Hope MSS. *Head rufous brown, the vertex and antennæ black; thorax rufous, shining, with a black diamond-shaped patch in the middle; scutellum black; elytra rich shining green, deeply punctured, with a narrow ochreous margin; legs black; base of femora and tibiæ rufous brown.* Length, .21 inch ♀; .17 ♂.—Hab. Swan River. Mus. Hope and Westwood.

Var. *atripennis*. *Elytra black, with a purplish iridescence; 3rd and 4th joints of antennæ brownish.*

*Anodonta albilinea*, Hope MSS. *Head black, spotted straw colour; antennæ black; thorax black, lateral margins white; elytra light yellowish brown, with a quadrate black patch on the disc, which joins the scutellum by a sutural band; punctate-striate near the tip; legs and tarsi shining black.* Length .16 inch.—Hab. Van Diemen's Land. Mus. Hope and Westwood.

Section 2. *Body cylindrical.*

*Anodonta pulchella*, Hope MSS. *Head rufous brown; vertex black; antennæ black, 3rd and 4th joints dull brown; thorax rufous brown, shining; elytra shining green, with a broad rufous brown lateral marginal band; legs and tarsi black.* Length .18 inch.—Hab. New Holland. Mus. Hope.

*Anodonta cyanipennis*, Hope MSS. *Head and antennæ glossy black; thorax rufous brown; scutellum black; elytra shining steel-blue with purplish iridescence, deeply punctured, geminato-striato-punctate at the tip. Legs and tarsi black.* Length ♀ .16 inch; ♂ .13 inch.—Hab. New Holland. Mus. Hope and Westwood.

*Anodonta flaviventris*, Hope MSS. *Head jet-black, with a yellow heart-shaped patch on the face; thorax rufous brown, with a black line in front; scutellum black; elytra shining black, striated with a subcentral V-like yellow mark; body beneath and legs pale yellow; tips of tibiæ and tarsi black.* Length .14 inch.—Hab. New Holland. Mus. Hope.

*Anodonta rugosa*, Hope MSS. *Head and antennæ black; thorax black, shining, very gibbose in front, rugose and deeply punctured; scutellum black; elytra black, shining; apex rufous brown, rugose and deeply punctured; legs black.* Length .18 inch.—Hab. New Holland. Mus. Hope.

HELODIMORPHA. *Body elongate, ovate, compressed. Head vertical, small. Eyes reniform. Antennæ filiform, variable in length; 3rd, 4th and 5th joints long, somewhat slender; 5th the longest, the remainder shorter than the 5th. Scutellum rounded behind.*

*Helodimorpha atra*. *Black; face striate; thorax shining, finely punctate; elytra shining, irregularly striate and punctured.* Length .18 inch.—Hab. Van Diemen's Land. Mus. Westwood.

*Helodimorpha ænea*. *Shining bronze with coppery iridescence. antennæ black; 3rd, 4th and 5th joints dull rufous; thorax*

deeply punctured; elytra irregularly punctured. Length .17 inch.—Hab. Van Diemen's Land. Mus. Westwood.

*Helodimorpha viridis*, Hope MSS. *Antennæ nearly as long as the body, brilliant metallic green; antennæ black, 2nd, 3rd and 4th joints dull rufous; thorax coarsely punctured and subcarinated behind in the middle; elytra closely and irregularly punctured; tips of posterior tibiæ and tarsi dull brown.* Length .11 inch.—Hab. New Holland. Mus. Hope and Westwood.

“Description of a new British species of *Iulus*.” By George Newport, Esq.

*Iulus Sandvicensis*, Newport. *Rather larger and thicker than I. terrestris; face very convex and polished; antennæ scarcely longer than the head, clavate; 2nd, 3rd, 4th and 5th joints subequal, 6th shorter, infundibuliform; segments of body 52, posterior half of each polished; anal valves very large; pre-anal scale short, trigonate.* Found near Sandwich in Kent.

“Note on the occurrence of two species of *Entozoa* in the large veins of the liver of the human subject.” By W. J. Pettigrew, Esq.

“Description of a new genus of *Lamellicorn* Beetles allied to *Pachypus*.” By J. O. Westwood, F.L.S.

*METASCELIS*, Westw. *Corpus apterum. Elytris apice dehiscentibus, podice detecto. Clypeus os omnino obtegens. Antennæ breves, 9-articulatæ, articulo 4<sup>to</sup> brevi internè producto, 5 et 6 lamelliformibus, 7, 8, 9que paullo longioribus. Maxillæ lobis apicalibus obsolete. Prothorax lateribus rotundatis. Pedes 2 postici breviores crassissimi.*

*Metascelis flexilis*, W. *M. fusca, nitida; capite et podice magis castaneis, illo punctato; prothorace et elytris lævibus; infrà cum pedibus lutea, luteoque pilosa.* Long. corp. lin. 7.—Hab. —? Mus. Soc. Linn. Lond.

“Notes on the habits of *Nyssia zonaria*.” By Mr. Gregson.

This newly-discovered moth occurs in the winged state in the first week in March. The pupæ are buried about an inch and a half deep in the sand, at New Brighton in Cheshire, in a valley among the sand-hills near the hotel, and have never been noticed at any other place except about three miles further down the sand-hills, on the level land adjoining cultivated ground near Leasow Castle, where Mr. Gregson found them at the end of June and beginning of July during several successive years. The spring brood are never seen on the wing; but the summer brood take wing in fine sunshine, darting about like the gamma moth. The former brood are observed fanning their wings on the long grass on the sand-hills; but should the wind be cold they creep to the warm side of the tufts of grass, and are very difficult to find.

“Notes on the parasitic habits of the *Nomadæ*, and on the habits of other insects.” By Mr. F. Smith.

In this paper Mr. Smith details the plans which he has adopted in order to observe the habits of the long-horned bee, *Euclera longicornis*, and its parasite, *Nomada Schifferella*, (the male of which



latter is the *Andrena connexa*, K.) which he succeeded in obtaining early in the spring from the nests of the former. He also mentions having found an immense number (thousands) of specimens of the minute insect considered as the larvæ of *Meloe*, upon a flower, in April, whilst in June he captured a similar insect (but differing in form and colour) on the underside of the abdomen of *Nomada Schæfferella*. He likewise mentions that he had reared specimens of the same species of *Cryptus* (a genus of *Ichneumonidæ*) from *Epipone levipes* and *Trichiosoma lucorum*.

“Note on the parasitic habits of *Nomada*.” By George Newport, Esq., who obtained specimens of *Nomada Sheppardana* on the 16th July, 1829, from a bank of dry clay, at Ash near Sandwich, where he found from six to eight specimens apparently recently disclosed, but sufficiently active to take flight when disturbed, in a single nidus apparently about the size of that of *Colletes*.

Mr. Shuckard, in allusion to the last two papers, stated that it was interesting to find that the genus *Nomada* did not confine its parasitism to one genus of bees, as he obtained *Nomada Sheppardana* from the nest of *Halictus minutus*. He also stated that he had detected a specimen of *Macropis labiata* (a genus of bees not previously recorded as natives of this country) in the indigenous cabinet at the British Museum, with a label inscribed “Leicester,” from the collection of Dr. Leach.

#### WERNERIAN NATURAL HISTORY SOCIETY.

The Societies in Edinburgh have again commenced their scientific meetings; the Wernerian Society on the 26th of Nov. elected as its office-bearers for the Session 1842–43 the following gentlemen:—

*President*: Professor Jameson.—*Vice-Presidents*: Dr. R. Graham, Sir Wm. Newbigging, Right Hon. Lord Greenock, Sir Ch. G. S. Menteith, Bart., Dr. R. Paterson, Prof. Edward Forbes.—*Council*: R. Stevenson, Esq., D. Milne, Esq., J. Stark, Esq., T. Brown, Esq., Sir W. Jardine, Bart., Professor T. S. Traill, Dr. R. K. Greville, J. Goodsir, Esq.—*Joint-Secretaries*: Dr. Pat. Neill, T. J. Torrie, Esq.—*Treasurer*: A. G. Ellis, Esq.—*Joint-Librarians*: J. Wilson, Esq., Dr. R. Hamilton.—*Artists*: P. Syme, Esq., and W. H. Townsend, Esq.

After which, Saturday the 10th of December was fixed for the first meeting, when the following communications were read:—

1. “Account of the *Elaps Jamesoni*, a new species of Serpent from South America;” by Dr. Traill. Dr. Traill considered that eventually this serpent might be removed from *Elaps*. It was procured at Demerara, was four feet in length, and on dissection was found to be furnished with fangs provided with a gland and fine duct to the hollow tooth.

2. “Account of new tribes of Crustacea from the Firth of Forth;” by Mr. Goodsir, jun.

A fine specimen of the *Squalus Vulpes* or Fox Shark, taken in Largo Bay, 13 feet in length, was exhibited, and is interesting as being, so

far as can be traced, the only authentic specimen of the fish on record as taken in the Scottish seas.

#### ROYAL SOCIETY OF EDINBURGH.

Dec. 19, 1842.—Read, “ A Notice of the occurrence in Scotland of the *Tetrao medius* ; showing that supposed *Species* to be a Hybrid.”  
By James Wilson, Esq.

Mr. Wilson, after stating the opinions of the ornithologists who consider the *Tetrao medius* of authors as a hybrid, and the views of those who maintain it to be a species, exhibited a specimen shot in Perthshire during the present winter, being the second which had been killed. He observed, that previous to the extirpation of the Capercailzie in the Highlands, a specimen of the *T. medius* had been recorded as a native of Scotland, and that the re-appearance now in the vicinity of the Breadalbane preserves, immediately after the re-introduction of the Capercailzie by the exertions of the noble proprietor, was a very convincing proof of the hybridity of the birds, while dissection had shown that the generative organs were very imperfect, or as they generally are found in hybrids; in fact, that now there could be little doubt upon the subject. The bird exhibited was very similar to a continental specimen placed on the table for comparison.

*Note.*—Mr. Wilson deserves the acknowledgements of ornithologists for bringing this subject before them, but we would wish that it should not yet be considered as closed, particularly at a time when direct evidence is likely to be obtained. We are sure that the Earl of Breadalbane will allow every facility in the interesting investigation; and as the birds breed in captivity, it might be ascertained either at Taymouth, or it would be a fitting subject of experiment in the Edinburgh Zoological Gardens.

The facts stated by Mr. Wilson are very strong circumstantial evidence; at the same time they amount only to the proof that the *T. medius*, if a species, was extirpated from Scotland at a similar period with the Capercailzie; and we must be perfectly assured that no specimens of the former were introduced either as eggs, or immature birds, among those procured by Lord Breadalbane. It is curious also, that the specimens which reach this country in spring from the continent, through the poulterers, are all exactly similar in plumage, as much so as any true species; and if proved to be a hybrid, it will stand as a remarkable fact, that two distinct forms propagate a cross, having almost an individual specific identity.—Ed.

#### BOTANICAL SOCIETY OF EDINBURGH.

This Society held its first annual meeting for the season on Nov. 10th, Professor Graham in the chair.

Mr. Brand read a paper by Mr. Edmonstone, jun., on the Botany of Shetland, and instituted a comparison between the numbers of genera and species existing in that region, and those which occur in other districts of Scotland\*.

\* See Mr. Edmonstone's former remarks on this subject in vol. ix. p. 69.—Ed.

“The botany of Shetland,” observes Mr. Edmonstone, “though not very extensive, is interesting. Many of the less common (chiefly subalpine) plants are abundant in all situations; and many species, very commonly distributed, and indeed often marked as *universal*, throughout Great Britain, are very rare, or altogether unknown in Shetland. Among the last may be mentioned *Alchemilla arvensis* and *vulgaris*, *Briza media*, *Primula veris*, *Anagallis arvensis*, *Convolvulus arvensis*, *Teucrium Scorodonia*, *Geranium robertianum*, *Lapsana communis*, and others of the commonest weeds. Again, *Thalictrum alpinum*, and other *local* plants are everywhere abundant, growing down to the sea-level; and sylvan plants—those generally associated with woods or luxuriant pasturage—are almost entirely wanting. The *geology* of Shetland is rich in interesting phenomena. The formation is almost wholly primitive, the most abundant rocks being gneiss, mica-schist, clay and chlorite-slate, granite quartz, serpentine limestone, &c., besides which, there are amygdaloidal porphyritic rocks of different kinds. The difference of formation between Shetland and Orkney is very striking, that of the latter being as uninteresting as the former is the reverse. Orkney consists chiefly of an apparent continuation of the north coast of the mainland, being composed of sandstone, clay-slate, and other *secondary* rocks, while the Shetlands may be said to belong to the *oceanic* series of islands. Again, the difference seems as great between the Shetland and Faroe Isles, for in the latter group the rocks are all *basaltic*. Many of the Shetland rocks present a most remarkable degree of similarity to those of the south of England, chrome ore, native magnesia, serpentine, crystallized fluor, and several others, being common to both extremities of Great Britain, though rarely found in the intermediate space; and it is a singular fact that some of the plants present a corresponding analogy, as for instance, *Lathyrus maritimus*, &c.

“The prevalence of *peat* is a very characteristic feature in the general aspect of Shetland, and proves beyond a doubt the great abundance of trees in former ages. Judging from the remains, these seem chiefly to have belonged to *Corylaceæ* and *Pinaceæ*, as trunks and nuts of the hazel, and cones of *Abies picea* have repeatedly been dug out of the moors. This evidence of their existing formerly in such abundance, leads to the question whether they may still be grown. I certainly do not think that the experiment has been fairly tried, nor is it probable that it soon will be on a scale which can set the matter at rest; indeed, many reasons seem to concur in rendering it unlikely that trees could be reared so as to render them profitable in an economical point of view. The frosts and cold weather which often occur early in autumn do not leave the plants time to form their buds for hibernation before the old leaves are nipped; and the heat of summer is by no means sufficient (as in most other northern latitudes) to compensate for the shortness of its duration. I do not attach so much importance as has sometimes been done to the influence of the sea-spray, by which, during heavy gales, Shet-



land is liable to be swept, for these happen generally after the sap has descended, and when therefore the plant is dormant.

“ I may here mention some experiments which have been carried on by my father for five or six years, in order, if possible, to settle the question. He obtained from Messrs. Lawson, of Edinburgh, all the more generally cultivated trees and shrubs,—North British, North American, and North Asiatic, and the result has been as follows. Among the indigenous trees of Scotland, the ash appears to stand as well as any other, as it puts forth its leaves late, and loses them early. Of the scarcely indigenous, or naturalized species, the plane-tree appears to be the hardiest, while the birch and Scotch fir will scarcely live a year. Again, *Pinus montana* and *Æsculus Hippocastanum*, comparatively tender plants, appear to thrive well; and *Pyrus Aucuparia*, which is indigenous with us, thrives tolerably in cultivation. Almost all the willows do well;—*Salix Russelliana*, *fragilis*, *cinerea*, *viminalis*, and *vitellina*, among the best. The alder is rather too early in putting forth its leaves, but some poplars appear to do well, especially the white Scotch, black Italian, and Lombardy, and *Populus nigra* is indigenous. Oak and beech will not thrive at all. Generally speaking, evergreens, both trees and shrubs, appear not to suit. *Pinus Cembra*, *Abies picea*, black, white, and Norway, have all been repeatedly tried, but seldom languished a year. Even the hardy, shrubby evergreens, which are met with indigenous, or in every shrubbery on the mainland, as *Ilex aquifolium*, *Rhododendron ponticum* and *flavum*, *Viburnum Tinus*, &c., die almost immediately. Among the best-thriving evergreen shrubs may be mentioned *Arbutus mucronata*, *Cotoneaster Uva-ursi*, *Hedera Helix*, &c. The latter indeed is native, and in some situations thrives remarkably well, as it also does in Orkney.

“ The *climate* of Orkney and Shetland are much alike, but scientific observations have only been recorded of the former. ‘ Regarding it,’ Mr. Clouston states, ‘ the high latitude of Orkney will no doubt induce some well-informed persons even in Scotland to suppose that our winter is much colder than that of any other country, and it may surprise them when we say that our winter is as warm as that of Glasgow, and several degrees warmer than that of Applegarth in Dumfriesshire, on the very southern border. This is owing to the influence of the surrounding ocean, which elevates the temperature of winter as much as it lowers that of summer. Thus, the temperature of Orkney in May, June and July is 7 degrees below that of Glasgow during these months; but for the *whole year* the mean annual temperature in Orkney is nearly the same as that in Applegarth, both being about 46°, or 3½ below that of Glasgow.’ ”

Mr. Edmonstone goes on to observe, that “ the uniformity of temperature in Shetland strikes every one; and a remarkable feature in the climate is the great and almost constant humidity. These causes no doubt have a great influence on the vegetation, for there is not a semblance of *arctic*, and scarcely (except in a very few instances)

of *alpine* vegetation throughout the whole islands. This is certainly rather what might be expected than otherwise; but there are other anomalies which cannot be altogether referred to climate; and the extreme scantiness of the flora is remarkable, considering the extent of the islands, and the variety of soil, exposure, and situation which they present."

The flowering plants (including the grasses) hitherto observed in Shetland extend to 94 genera and 178 species, while those found in the district of Moray amount to 333 genera and 692 species; and even in a range of 16 miles round Aberdeen, there have been found 287 genera and 562 species; and in a similar extent round Edinburgh, the numbers are 389 genera and 908 species, while the flowering plants of Great Britain extend to 523 genera and 1594 species. The proportion of species to genera is also least in Shetland and Aberdeenshire, being only 2 to 1; whereas in the Edinburgh district it is  $2\frac{1}{2}$  to 1, and in Britain generally it is 3 to 1.

The statements in Mr. Edmonstone's paper led to some interesting conversation, in the course of which Professor Graham remarked, as a phænomenon which has not hitherto received a satisfactory solution, the entire destruction or absence of wood in many parts of Scotland where once it evidently abounded, and where the change cannot apparently have arisen through human instrumentality; and he observed, that the investigation of this subject would be attended with great interest, besides being of importance in a national point of view.

Dr. Neill said, that in his opinion the peat mosses of Scotland have generally been formed at an earlier period than is usually supposed, some of them containing trees which do not now exist in the country; and he suggested that means should be taken to ascertain the particular species of which the mosses consist, by taking specimens of wood and seeds, or cones, &c., from the successive layers, and duly noting their relative position, with all such circumstances as might tend to establish a correct theory respecting our aboriginal forest-vegetation; indeed he had once proposed that a prize should be offered by the Highland Society for the best essay on this subject, but his proposal had not been carried into effect.

Mr. Brand remarked, that in this country, as in America, the forests in many places appear to have been destroyed by fire, and he instanced some oak-trees in Dalkeith Park which appear to have been burnt down at an early period, and to have thrown out new trunks from the stumps at a later date.

Mr. Goodsir supposed that the increase of the peat might gradually render the soil unfit for the support of trees, and stated, in reference to a remark made by Professor Graham on the approach of the alpine plants in Shetland to the sea-edge, that this peculiarity coincided with the elevation of the deep-sea invertebrate animals to the high-water mark in the same locality.

This Society met again on the evening of Wednesday, December 7th, Professor Christison in the chair. The election of office-bearers

for the season took place,—Dr. Neill, President; Professors Christison, Graham, Balfour, and D. Stewart, Esq., Vice-Presidents.

Professor Christison then submitted to the Society a highly interesting communication on the Assam Tea Plant, illustrated by specimens. The author stated that the different kinds of tea were produced by different modes of preparation, and showed, by a series of examples of the preserved tea-leaf, that the various forms were merely varieties of the same plant. A specimen of tea, of a yellow colour and of a remarkably strong flavour, was exhibited; also tea, in the form of small rolls, sent to this country about twenty years ago, as a present from the Emperor of China to George IV.

Mr. Goodsir then read a paper by Charles C. Babington, Esq., F.L.S., F.G.S., entitled “Observations upon a few Plants, concerning the claim of which to be considered as natives of Great Britain, Sir W. J. Hooker expresses doubt in the 5th Ed. of his ‘British Flora,’ with a few notes upon other species contained in that work, with reference to the Edinburgh Catalogue of British Plants.” The object of this paper was to show upon what evidence the authors (Professor Balfour, Mr. Babington himself, and Dr. Campbell) of the Botanical Society’s Catalogue of British Plants had included in it the species concerning which Sir W. J. Hooker expresses doubt. “I cannot allow this opportunity to pass,” says the author of this paper, “without expressing the great satisfaction which it gives me to see that so distinguished a botanist as Hooker has considered the Catalogue deserving of quotation *throughout his work*, as I must consider it as a proof that the compilers of the Catalogue of British Plants have not produced a work discreditable either to themselves or to the Society that entrusted its preparation to them.”

Mr. Brand afterwards read to the Society a “Notice of the presence of Iodine in some Plants growing near the Sea,” by G. Dickie, M.D., Lecturer on Botany in the University and King’s College, Aberdeen. The author found, by chemical examination of specimens of *Statice Armeria* from the sea-shore, and of others from the inland and higher districts of Aberdeenshire, that the former contained iodine, and that soda was more abundant in them, while potass prevailed in the latter. Iodine was also found in *Grimmia maritima*; and Mr. P. Grant of Aberdeen has found it in *Pyrethrum maritimum*. An analysis was made of examples of *Statice Armeria*, *Grimmia maritima*, *Lichina confinis*, and *Ramalina scopulorum*, all growing near the same spot, and occasionally during storms exposed to the sea-spray; and all these plants, with the exception of the lichen, contained iodine. The specimens having been washed previous to analysis, the iodine could not have been derived from saline incrustation. All these vegetables were healthy, and the author of the paper has been led to conclude that marine algæ are not the only plants which possess the power of separating from sea-water the compounds of iodine and of condensing them in their tissues, and this without any detriment to their healthy functions.